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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DARBY & DARBY P.C. P.O. BOX 5257 NEW YORK, NY 10150-5257			TORRES, JOSEPH D	
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			2133	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,557	BARRY ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03/03/2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 50-120 is/are pending in the application.
- 4a) Of the above claim(s) 74-99, 101-103, 105, 106 and 108-118 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 50-73, 100, 104, 107, 119 and 120 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 January 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claim Objections

1. Claim 99 has been amended either 1) to be in independent form containing a limitation that refers back to claim 82 or 2) to be in independent form depending from claim 82. The Examiner suggests writing 1) the claim so that the dependency appears in the preamble, i.e., --The method of claim 82--, if that is what the Applicant intends or 2) explicitly writing the method steps of claims 74, 79, 81 and 82, so they appear in claim 99 and removing all reference to claim 82.

Claims 101-103, 105, 106, 108-110 all suffer from the same deficiencies as claim 99, above.

Election/Restrictions

2. Newly submitted claim 99 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 99 currently depends from claims 74, 79, 81 and 82 which were previously withdrawn from consideration. Claim 50 and 74 are directed to different inventions and claim 99 is not even in proper form for consideration.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 99 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The Applicant contends, "Additionally, it is respectfully submitted that Claims 99, 101-103, 105, 106, 108-110, and 116-118 are linking claims". The Examiner asserts that newly amended claims 99, 101-103, 105, 106, 108-110, and 116-118 are not even in proper conditions for consideration as pointed out in the previous section (see ***Claim Objections***, above).

The Examiner would like to point out that the last Office Action made the restriction of the claim set filed 12/09/2004 final for the reasons given in the Office Action filed 01/21/2005. Even, if it were possible to amend claims to create linking claims as the Applicant claims, the applicant has to properly do so.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 74-99, 101-103, 105, 106 and 108-118 drawn to nonelected inventions. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

3. Applicant's arguments with respect to claims 50-73, 100, 104 and 107 have been considered and since the Applicant has made substantial amendments to the previous claim language, the Examiner's responses to the Applicant's arguments are included, below, along with new ground(s) of rejection.

Specification

4. The Applicant contends, "Although the exact phrase 'pre-programmed data pattern' is not used in the specification, the data generation and generation logic generated at block 46, and the values stored in lookup table 42 for points where it is not possible to algorithmically generate data, act collectively as pre-programming for generation of a data pattern".

The Examiner would like to point out that the Applicant admits 'pre-programmed data pattern' is not used in the specification. Furthermore the Applicant contends that the term "pre-programmed data pattern" can refer to "the data generation and generation logic generated at block 46, and the values stored in lookup table 42". The Examiner asserts that "data generation" is not even a pattern much less a "pre-programmed data pattern", "generation logic" is not even a pattern much less a "pre-programmed data pattern" and the values stored in lookup table are not "pre-programmed", but stored patterns. It is still not clear to the Examiner nor would it be clear to one of ordinary skill in the art at the time the invention was made what "pre-programmed data pattern" refers to in the specification and is not clear how the Applicant's cited elements make up a or are related to the "pre-programmed data pattern".

The Applicant contends, "The exact terminology used in a claim need not have antecedent basis in the specification".

While that may be true, the claim language still must satisfy the requirement for enablement and one of ordinary skill in the art at the time the invention was made

should be able to make or practice the invention that the Applicant regards as the Applicant's invention without undue experimentation. Having to call the Applicant to verify what the exact nature of a "pre-programmed data pattern" is would be considered undue experimentation.

The disclosure is still objected to because of the following informalities: Pre-programmed data patterns introduced in newly amended claims 50-73, 100, 104 and 107 filed 12/09/2004 is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure.

Appropriate correction is required.

Claim 50 recites, "wherein each pre-programmed data pattern in the set of at least one pre-programmed data pattern is pre-programmed for subsequent creation of the pre-programmed data pattern". Since as pointed out above, it is not even clear what a "pre-programmed data pattern", it is impossible to determine how the language in the specification can support the newly added limitation.

Claim Rejections - 35 USC § 112

5. The Applicant contends, "Although the exact phrase 'pre-programmed data pattern' is not used in the specification, the data generation and generation logic generated at block 46, and the values stored in lookup table 42 for points where it is not

possible to algorithmically generate data, act collectively as pre-programming for generation of a data pattern".

The Examiner would like to point out that the Applicant admits 'pre-programmed data pattern' is not used in the specification. Furthermore the Applicant contends that the term "pre-programmed data pattern" can refer to "the data generation and generation logic generated at block 46, and the values stored in lookup table 42". The Examiner asserts that "data generation" is not even a pattern much less a "pre-programmed data pattern", "generation logic" is not even a pattern much less a "pre-programmed data pattern" and the values stored in lookup table are not "pre-programmed", but stored patterns. It is still not clear to the Examiner nor would it be clear to one of ordinary skill in the art at the time the invention was made what "pre-programmed data pattern" refers to in the specification and is not clear how the Applicant's cited elements make up a or are related to the "pre-programmed data pattern".

The Applicant contends, "The exact terminology used in a claim need not have antecedent basis in the specification".

While that may be true, the claim language still must satisfy the requirement for enablement and one of ordinary skill in the art at the time the invention was made should be able to make or practice the invention that the Applicant regards as the Applicant's invention without undue experimentation. Having to call the Applicant to verify what the exact nature of a "pre-programmed data pattern" is would be considered undue experimentation.

The Applicant contends, "It is respectfully submitted that the term 'in part', as used in Claims 57 and 60, is not indefinite. The term 'in part' in Claim 57 clarifies that algorithmic pattern generation need not be performed by the state machine alone". The term "in part" is still indefinite since it still does not indicate what portions of the algorithmic pattern generation the state machine performs (Note: "in part" can range from .001% to 99.99%).

The Applicant contends (regarding claims 50-73, 99, 100 and 107 rejected under 35 U.S.C. 112 second paragraph), "First, the rejection is improper on the grounds that it is directed towards a method claim rather than an apparatus claim".

MPEP § 2171 recites "There are two separate requirements set forth in this paragraph: (A) the claims must set forth the subject matter that applicants regard as their invention; and (B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant".

The Examiner would like to point out that in order to satisfy these two requirements, the

English language that the Applicant chooses to claim his invention must make sense.

Claims 50-73, 99, 100 and 107 rejected under 35 U.S.C. 112 second paragraph because of the following limitation: "for each of the plurality of portions of the selected data pattern that is pre-programmed for algorithmic pattern generation, performing a pre-programmed algorithm to create the portion" in lines 9-11 of claim 50. Lines 4-6 of claim 50 recite, "each pre-programmed data pattern of the set of at least one pre-

programmed data pattern includes a plurality of portions". The phrase "the plurality of portions of the selected data pattern" completely lacks any antecedent basis since the only portions referred to in previous claim language are "a plurality of portions" included in the pre-programmed data pattern. The Examiner asserts that English language that the Applicant is attempting to use to claim the Applicant's invention is so ambiguous and indefinite that it is impossible for one of ordinary skill in the art at the time the invention was made to determine what the Applicants regard as their invention and fails to distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.

The Applicant contends, "Second, the rejection is improper because nothing 'essential' has been omitted from the claims". Claims 50-73, 99, 100 and 107 rejected under 35 U.S.C. 112 second paragraph because of the following limitation: "for each of the plurality of portions of the selected data pattern that is pre-programmed for algorithmic pattern generation, performing a pre-programmed algorithm to create the portion" in lines 9-11 of claim 50. Lines 4-6 of claim 50 recite, "each pre-programmed data pattern of the set of at least one pre-programmed data pattern includes a plurality of portions". The phrase "the plurality of portions of the selected data pattern" completely lacks any antecedent basis since the only portions referred to in previous claim language are "a plurality of portions" included in the pre-programmed data pattern. To even begin to understand what the Applicant is attempting to claim the relationship between "each pre-programmed data pattern" and "the selected data pattern" is essential.

The Applicant contends, "Claim 57 was rejected as omitting necessary structural connections between 'the algorithmic pattern generation' and 'a state machine' and between 'the algorithmic pattern generation' and 'a plurality of tables'. It is respectfully submitted that this rejection is improper, because it is nonsensical to have a structural connection between a process (algorithmic pattern generation) and a thing (a state machine or a plurality of tables)".

That is exactly the Examiners point, what does "a plurality of tables" have to do with "algorithmic pattern generation"? Furthermore, The term "in part" in Claim 52 from which claim 57 depends is indefinite since it still does not indicate what portions of the algorithmic pattern generation the state machine performs (Note: "in part" can range from .001% to 99.99%); hence the relationship between "a plurality of tables" and "algorithmic pattern generation" is indefinite since it is not clear what the "plurality of tables" have to do with the "state machine".

The Applicant contends, "The limitation 'the set of at least one data pattern includes the plurality of component video patterns' species that each component video pattern in the plurality of component video patterns is a data pattern that is a member of the set. In other words, it specifies that the plurality of component video patterns is a subset of the set of at least one data pattern".

The Examiner disagrees and asserts that each data pattern is a component video pattern or three data patterns make up a video component are also alternative embodiments of the limitation.

The Applicant contends, "The Office Action further asserts that Claims 50-73, 99, 100, 104, and 107 are replete with additional problems under 35 U.S.C. § 112 that require correction. As far as Applicants can tell, these supposed problems primarily stem from the Office's misinterpretation that 'the selected data pattern' must already exist, when the act of selecting refers to selecting the data pattern to be created, as discussed above with regard to Claim 50.

That is incorrect; the Examiner asserts that the claim language suffers from severe deficiencies some which stem from the Applicant's indefinite uses of language such as "created test pattern", a "selected test pattern", a "created selected test pattern" and a "selected created test pattern" as pointed out in the current and previous office actions, however the Examiner asserts that there are numerous examples of indefinite language. Another example is in the previous paragraph above; in line 2 of claim 100 "the set of at least one data pattern" lacks any antecedent basis. The Examiner asserts that there are too many 35 U.S.C. 112 problems in the current claim language and the Examiner must rely on the Applicant to find and correct all 35 U.S.C. 112 problems.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 50-73, 100, 104 and 107 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Pre-programmed data patterns is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

See the Non-Final Action filed 01/21/2005 and previous paragraph, above, for detailed action of prior rejections.

Claim 50 recites, "wherein each pre-programmed data pattern in the set of at least one pre-programmed data pattern is pre-programmed for subsequent creation of the pre-programmed data pattern". Since as pointed out above, it is not even clear what a "pre-programmed data pattern", it is impossible to determine how the language in the specification can support the newly added limitation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 50-73, 100, 104 and 107 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 recites, "wherein each pre-programmed data pattern in the set of at least one pre-programmed data pattern is pre-programmed for subsequent creation of the

pre-programmed data pattern" [Emphasis Added]. It is not clear how pre-programmed data patterns can be used to recursively create themselves. Furthermore; the limitation provides a recursive definition for "pre-programmed data pattern" with no means to limit the number of recursions for the definition, i.e., the definition is an infinitely recursive definition.

Claim 52 recites, "wherein the algorithmic pattern generation is accomplished, in part, by a state machine". The term "in part" is indefinite. The term "in part" is still indefinite since it still does not indicate what portions of the algorithmic pattern generation the state machine performs (Note: "in part" can range from .001% to 99.99%).

Claim 60 recites, "wherein the algorithmic pattern generation is accomplished, in part, by a state machine". The term "in part" is indefinite. The term "in part" is still indefinite since it still does not indicate what portions of the algorithmic pattern generation the state machine performs (Note: "in part" can range from .001% to 99.99%).

Claim 100 recites "creating the selected test pattern includes regenerating the selected test pattern such that the created data pattern is a regenerated selected test pattern" and claim 50 recites, "selecting a data pattern to be created". The data pattern that is selected and created is a "created test pattern", a "selected test pattern", a "created selected test pattern" and a "selected created test pattern". Claim 100 now recites that the "created data pattern" is also "regenerated selected test pattern". Creating the selected test pattern still requires that the selected test pattern exit prior to its creation so that it can be regenerated, which makes no sense. The statement is infinitely recursive in nature. Furthermore, it is impossible to determine what limitation the

Applicant is attempting to claim since it is impossible to distinguish the differences between a "created test pattern", a "selected test pattern", a "created selected test pattern" and a "selected created test pattern".

Claims 50-73, 100, 104 and 107 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The preamble in claim 50 was amended to recite, "A method" removing any reference to any useful hardware or useful purpose attached to a hardware device.

In addition, see the Non-Final Action filed 01/21/2005 for detailed action of prior rejections.

The Examiner asserts that claims 50-73, 99, 100, 104 and 107 are replete with 35 U.S.C. 112, as pointed out above. The claims need to be reviewed and corrected to remove all problems especially those stemming from lack of antecedent basis and omission of structural relationships.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 50-73, 100, 104 and 107 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 50 recites an abstract algorithm that can be implemented using a computer program. Abstract algorithms are non-statutory subject matter. Computer programs are non-statutory subject matter.

Claims 50-73, 100, 104 and 107 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. Claim 50 recites, "wherein each pre-programmed data pattern in the set of at least one pre-programmed data pattern is pre-programmed for subsequent creation of the pre-programmed data pattern" [Emphasis Added]. It is not clear how pre-programmed data patterns can be used to recursively create themselves. Furthermore; the limitation provides a recursive definition for "pre-programmed data pattern" with no means to limit the number of recursions for the definition, i.e., the definition is an infinitely recursive definition. It is impossible to build a useful machine or hardware component based on an infinitely recursive definition.

Claim Rejections - 35 USC § 102

9. The Applicant contends, "The video test pattern of Wilensky is not pre-programmed. In contrast, Applicants' Claim 50 recites 'selected a data pattern to be created from a set of at least one pre-programmed data pattern' and 'creating the selected data pattern'".

The Examiner disagrees and asserts that col. 2, lines 50-55 in Wilensky teaches that the patterns of Figure 1 are available in advance. Col. 2, lines 60-63 in Wilensky teach that the patterns have programmable features, which allow certain video features to be adjusted; hence the patterns in Figure 1 are pre-programmed so that they are available in advance to be programmably adjusted for testing.

The Applicant contends, "Also, it is respectfully submitted that the rejection to Claim 55 under 35 U.S.C. § 102 should be withdrawn at least because Wilensky does not disclose 'filtering an output of at least one of the state machine and the look-up table', as recited in Applicants' Claim 55".

Character memory 87 in Figure 5 of Wilensky is a look-up table whereby when the data pattern is selected, starting the state machine and initiating sample, packet, and look-up signals to control Frame buffer memory 83, row and Column counter 89 and Character memory look-up table 87; and creating the selected data pattern from at least one of a look-up table and the state machine by tracking a location in a data sequence of the selected test pattern and transitioning between states according to the pre-programming (col. 5, lines 1-16, Wilensky). In particular, the character generation in Wilensky is a process for filtering an output using a Font Address (see Block 85 in Figure 4 of Wilensky) of at least one of the state machine and the look-up table (see Block 87 in Figure 4 of Wilensky).

The Applicant contends, "dithering an output of at least one of the state machine and the look-up table', as recited in Applicants' Claim 56".

Col. 1, lines 49-50 in Wilensky teach that the device is capable of operating in a dithering mode (shades of grey in raster mode).

The Applicant contends, "The Office Action states that 'the shift register in Figure 4 in Wilensky selects data patterns.'"

That is incorrect, the Office Action states, "The shift register in Figure 4 in Wilensky is a state machine". Furthermore Claim 58 does not state that the pattern select signal is related to the state machine in anyway, so that the Examiner does not understand how the Applicant has misconstrued the Examiners reference. Block 85 in Figure 4 of Wilensky is a selection means.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 50, 52, 54-64, 66-73, 119 and 120 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilensky; Barry F. et al. (US 4513318 A, hereafter referred to as Wilensky).

35 U.S.C. 102(b) rejection of claims 50 and 61.

Wilensky teaches selecting a data pattern from a set of at least one pre-programmed data pattern (col. 9, lines 15-16 in Wilensky teaches selecting character from a set of at least one pre-programmed characters preprogrammed and stored in character memory 87 in Figure 4; col. 8, lines 62-65 in Wilensky teaches that each character is a portion of a test pattern; hence Wilensky teaches selecting a data pattern from a set of at least one pre-programmed character data pattern), wherein each pre-programmed data pattern of the set of at least one pre-programmed data pattern includes a plurality of portions (col. 9, lines 56-60 teach each character is made up of pixels; hence Wilensky teaches that each pre-programmed character data pattern of the set of at least one pre-programmed character data pattern includes a plurality of pixel portions); creating the selected data pattern, wherein creating the selected data pattern includes: for each of the plurality of portions of the selected data pattern that is pre-programmed for algorithmic pattern generation, performing a pre-programmed algorithm to create the portion (Figure 5 of Wilensky is an algorithm for creating a data pattern whereby for each of the plurality of character portions of the selected data pattern that is pre-programmed for algorithmic pattern generation, performing a pre-programmed algorithm to create the portion); and for each of the plurality of portions of the data patterns that is stored based on the pre-programming of the selected data pattern, retrieving the portion (Figure 5 of Wilensky teaches for each of the plurality of character portions of the data patterns that is stored based on the pre-programming of the selected data pattern, retrieving the portion from character memory 87 in Figure 4).

Col. 2, lines 50-55 in Wilensky teaches that the patterns of Figure 1 are available in advance. Col. 2, lines 60-63 in Wilensky teach that the patterns have programmable features, which allow certain video features to be adjusted; hence the patterns in Figure 1 are pre-programmed so that they are available in advance to be programmably adjusted for testing.

35 U.S.C. 102(b) rejection of claims 52.

The shift register in Figure 4 in Wilensky is a state machine; hence Wilensky teaches the providing of the data stream is performed utilizing state machine generated data (Note: sequential logic such as shift registers are state machines).

35 U.S.C. 102(b) rejection of claims 54-58.

Character memory 87 in Figure 5 of Wilensky is a look-up table whereby when the data pattern is selected, starting the state machine and initiating sample, packet, and look-up signals to control Frame buffer memory 83, row and Column counter 89 and Character memory look-up table 87; and creating the selected data pattern from at least one of a look-up table and the state machine by tracking a location in a data sequence of the selected test pattern and transitioning between states according to the pre-programming (col. 5, lines 1-16, Wilensky).

35 U.S.C. 102(b) rejection of claims 59 and 60.

The shift register in Figure 4 in Wilensky selects data patterns.

35 U.S.C. 102(b) rejection of claims 61-64, 67 and 70-73.

Claim 1 in Wilensky teaches that a “high level statement of a pattern” is issued to select a test pattern; hence “high level statement of a pattern” is a data selection signal. Col. 8, lines 57-68 in Wilensky teaches that a test pattern is generated for the video display system in response to the high level statement data selection signal. Claim 1 in Wilensky teaches that the data stream utilizes algorithmically generated pattern segment data; note: claim 1 explicitly provides an algorithm for constructing new pattern segments. Col. 8, lines 57-68 in Wilensky teaches that stored character data is utilized to produce the data stream.

35 U.S.C. 102(b) rejection of claims 66 and 68.

Col. 9, lines 56-60 teach each character is made up of pixels; hence Wilensky teaches that each pre-programmed character data pattern of the set of at least one pre-programmed character data pattern includes a plurality of pixel portions.

35 U.S.C. 102(b) rejection of claims 69.

Col. 9, lines 23-26 in Wilensky teaches repeating characters.

35 U.S.C. 102(b) rejection of claims 119 and 120.

Block 85 in Figure 4 of Wilensky is a selection means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 51, 53 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilensky; Barry F. et al. (US 4513318 A, hereafter referred to as Wilensky).

35 U.S.C. 103(a) rejection of claim 51 and 65.

Wilensky, substantially teaches the claimed invention described in claims 1-3, 6, 9, 10, 16-18, 21, 24 and 25 (as rejected above).

However Wilensky, does not explicitly teach the specific use of a checksum generator. Jarwala, in an analogous art, teaches the use of checksum generators whereby verification is performed by checking if the checksum values match (Col. 7, lines 5-40 in Jarwala). Note: in col. 7, lines 37-40, Jarwala teaches that checksum can be used to verify the test program's integrity. One of ordinary skill in the art at the time the

invention was made would have been highly motivated to combine the teaching in the Jarwala patent with the teachings in the Wilenski patent to ensure the integrity of the test pattern data in the Wilenski patent (col. 7, lines 37-40, Jarwala).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilenski with the teachings of Jarwala by including use of a checksum generator. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a checksum generator would provide the opportunity to ensure the integrity of the test pattern data in the Wilenski patent (col. 7, lines 37-40, Jarwala).

35 U.S.C. 103(a) rejection of claim 53.

Wilensky, substantially teaches the claimed invention described in claims 1-3, 6, 9, 10, 16-18, 21, 24 and 25 (as rejected above). In addition, Figure 5 in Wilenski teaches determining if a different data pattern is selected; and if a different data pattern is selected: asserting a pattern change signal.

However Wilensky, does not explicitly teach the specific use of a checksum generator. Jarwala, in an analogous art, teaches the use of checksum generators whereby verification is performed by checking if the checksum values match (Col. 7, lines 5-40 in Jarwala). Note: in col. 7, lines 37-40, Jarwala teaches that checksum can be used to verify the test program's integrity. One of ordinary skill in the art at the time the invention was made would have been highly motivated to combine the teaching in the

Jarwala patent with the teachings in the Wilenski patent to ensure the integrity of the test pattern data in the Wilenski patent (col. 7, lines 37-40, Jarwala).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilenski with the teachings of Jarwala by including use of a checksum generator. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a checksum generator would provide the opportunity to ensure the integrity of the test pattern data in the Wilenski patent (col. 7, lines 37-40, Jarwala).

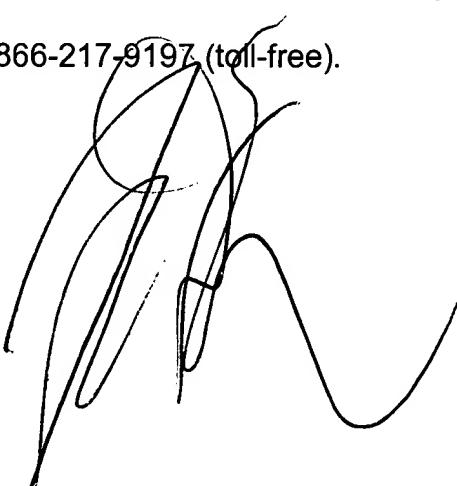
Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decayd can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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